Rohit Valmeekam

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Education

University of Illinois at Urbana-Champaign Graduating May 2025
Intended Major: Bachelor of Science in Statistics and Computer Science | GPA: 3.94 *Champaign, IL*

Technical Skills

Languages: Java (Proficient), Python (Proficient), C++ (Proficient), JavaScript (Intermediate), SQL (Intermediate)
Developer Tools: Git, Docker, PyCharm, Visual Studio Code, MySQL
Libraries/Techniques: React.js, Pytorch, Pandas, NumPy, Matplotlib, SciPy, Seaborn, Natural Language Processing

Experience

Software Engineer Oct. 2023 - Present
Introduction to Computer Science II - CS 128 Infrastructure and Course Development Team *Champaign, IL*
- Redesigning Computer Science course website with React.js, delivering real-time interactivity and scalability through Node.js on the backend
- Seamlessly integrating server-side functionality with a dynamic front-end by leveraging Ruby on Rails and Node.js
- Enhancing development efficiency by leveraging Docker for streamlined containerization

Data Engineer Aug. 2023 - Present
Illinois Risk Lab - Research Program in Risk and Actuarial Science *Champaign, IL*
- Leading creation of robust data pipeline by seamlessly connecting MongoDB database to insurance datasets utilizing Python's Luigi package
- Working under Professor Quan and collaborating with industry professionals to consolidate large datasets and implement data processing methodologies, such as data cleaning and database creation
- Integrating database with PostgreSQL Relational Database System created through supercomputing resources

Course Assistant - Introduction to Computer Science II (C++) Aug. 2023 - Present
University of Illinois Urbana-Champaign *Champaign, IL*
- Selected to lead weekly class discussions to effectively explain key C++ concepts, as well as functional programming practices such as test-driven development
- Contributing to prompts and test cases for machine projects encompassing topics such as encapsulation, greedy algorithms, binary trees, and dynamic memory management
- Answering students' C++ questions regarding homeworks, concepts, and machine projects via virtual help site

Project Manager - Introduction to Computer Science I Honors Jan. 2023 - May 2023
University of Illinois Urbana-Champaign *Champaign, IL*
- Led 4 members to develop Spotify playlist generator dependent on human moods using Machine Learning techniques, such as Support Vector Classifier and Multi-Layer Perceptron Classifier
- Took initiative to teach team React fundamentals and front-end design through in depth lessons during daily stand-ups
- Taught team advanced concepts in statistical and data analysis methodologies using Python

Projects

UIUC Roommate Finder | *React.js* Jun. 2023 - Jul. 2023
- Conceptualized, designed, and developed a web-based application to streamline the process of finding compatible roommates and subleases for University of Illinois Urbana-Champaign (UIUC) students
- Utilized React.js to build front-end, ensuring responsive and adaptable layout for various devices
- Developed roommate matching algorithm and seamlessly integrated application with Reddit API

CS 196 Machine Learning Model Comparison | *Python, Pandas, Matplotlib* Sept. 2022 - Dec. 2022
- Collaborated with other students to program an application that finds the optimal ML model for analyzing Google stock data during economic recession
- Used Python libraries to create ARIMA, Linear Regression, and Prophet models and compare their efficacies with each other using statistical analysis
- Took initiative to bridge the gap in team communication and organized tasks among team members

Effect of Recession | *Python, Pandas, Matplotlib, SciPy* June 2021 - Aug. 2021
- Analyzed the effect of economic recession on various sectors of the economy such as the housing and automotive industries
- Programmed robust Multiple Linear Regression models comparing sales, income, and other economic factors to recession data
- Used Matplotlib to generate linear regression models using rolling averages of data from the Federal Reserve Bank of St. Louis